REFERENCES

Annandale, N. (1919): The fauna of certain small streams in the Bombay Presidency. V. Notes on freshwater fishes mostly from Satara and Poona Districts. *Rec. Ind. Mus.* 16: 125-138.

BUCHANAN, H. (1822): Fish. Ganges: 354, 355. DAY, F. (1872): Monograph of Indian Cyprinidae. Part V. Journ. As. Soc. Bengal 41: 177.

(1878-88): The Fishes of India 1: 606; 2: pl. 154.

(1889): The fauna of British India, including Ceylon and Burma; Fish 1: 216.

Gunther (1868): Cat. Fish Brit. Mus. 7: 366, 367.

HORA, S. L. (1922): Notes on fishes in the Indian Museum. IV. On fishes belonging to the genus *Botia* (Cobitidae). *Rec. Ind. Mus.* 24: 313-321, 1 fig.

of genus *Botia*, with remarks on *Botia dario* (Ham-Buch.). ibid. 34: 571-573.

KALAWAR, A. G. & KELKAR, C. N. (1956): Fishes

of Kolhapur. J. Bombay nat. Hist. Soc. 53: 669-679, 3 figs.

Kulkarni, C. V. (1951): Some significant records of fish from Kolhapur, northern section of Western Ghats. *Curr. Sci.* 20: 334, 335.

MENON, A. G. K. (1974): A check-list of fishes of the Himalayan and the Indo-Gangetic plains. *Inland Fish. Soc. India, Special Bulletin 1*: 1-136.

RAO, C. R. NARAYAN (1920): Some new species of Cyprinoid fish from Mysore. Ann. Mag. nat. Hist. (9) 6: 45-64, pl. ii, figs. 4, 4a, 4b.

RAO, M. BABU & YAZDANI, G. M. (1977): Occurrence of cobitid genus *Botia* Gray in the Western Ghats of India. *J. Bombay nat. Hist. Soc.* 74 (2): 367, 368, 1 photograph.

SILAS, E. G. (1953): Notes on fishes from Mahableshwar and Wai (Satara District, Bombay State). ibid. 51: 579-589, 1 pl., 4 figs.

------ (1954): New fishes from the Western Ghats, with notes on *Puntius arulius* (Jerdon). *Rec. Ind. Mus.* 51: 27-37, 1 pl., 4 figs.

18. AN INTERESTING METHOD OF FISHING IN BASTAR DISTRICT, MADHYA PRADESH

(With a text-figure)

In the course of a fish survey of Bastar District in 1978, we came across an interesting method of fishing in the River Narangi, a tributary of River Indrawati, near Kondagaon. The method essentially consists of a cast net modified to act as an underwater trap, together with a device for directing fishes towards the net. In summer the water level in the river Narangi is very low and several water pools are formed in its entire course. As the fish population is poor in these pools, a cast net is not effective. The local fishermen have, therefore, developed a system by which they obtain a fairly good catch is shallow waters, between 2 and 3

metres depth, with the aid of cast net in a modified form.

The following articles are used in this method of fishing: one cast net (mesh size $\frac{1}{2}$ cm), one float [dried shell of gourd (*Lagenaria siceraria*) known as 'tumba'] fixed at the narrow end of the net, two cords of coconut fibre, three bamboo poles about two metres long, and leaves of "chhind" (*Phoenix pusilla*—Family Palmae) tied to the cords at intervals of about 10 cm. The cord with leaves tied to it is locally called "bela".

The cast net is stretched under-water in a conical shape, rather like a bell (Fig. 1). The open mouth of the net is attached to two poles

(Nos. 1 & 2) fixed vertically under water at a distance of about 1½ metres from each other. The narrow, closed end of the net is tied to a float which maintains its shape. A third pole (No. 3) is also fixed at a distance of a metre from pole No. 2. A bela measuring about 1 metre is tied between it and the pole No. 2. Another long bela is tied to the pole No. 1

bela between pole No. 2 and 3 also acts as a barrier, all the fishes while trying to escape the supposed danger enter the cast net and get trapped.

Fishermen lift the net up as soon as the end of the long *bela* reaches pole No. 3. The whole operation takes nearly half an hour and both pelagic and benthic forms are caught.

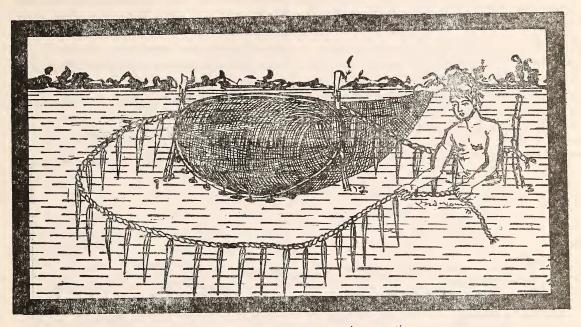


Fig. 1. The underwater trap net in operation.

and drawn underwater by a fisherman towards the pole No. 3 while encircling a large area of water. During this operation, fishes are scared on seeing the moving *bela* and the light reflected by the *Chhind* leaves. As the fixed

Zoological Survey of India, Central Regional Station, Jabalpur, March 3, 1979. We are grateful to Dr. K. Reddiah, Deputy Director and Officer-in-charge of this Station for giving us an opportunity to survey the Bastar Distt. (M.P.)

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